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10/695,703	10/29/2003	Hitoshi Motose	FS.20122US0A	5539
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KNOBBE MARTENS OLSON & BEAR LLP			STONE, JENNIFER A	
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IRVINE, CA 92614			2636	

DATE MAILED: 05/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/695,703	Applicant(s) MOTOSE ET AL.	
	Examiner Jennifer A. Stone	Art Unit 2636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>October 29, 2003</u> .  | 6) <input type="checkbox"/> Other: ____.                                    |

***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show text labeling for Figure 1, item 16 as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2, 3, 11-13, 17, 18, 26-28, 32, 33, and 41-43 are rejected under 35

U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The words "can" and "can be" should be changed to "is".

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 16 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by King (US 4,970,492).

For claim 16, King discloses a method for determining when a lubricant no longer possesses proper lubricant properties, the lubricant lubricating at least one movable member within an internal engine (col 1, lns 7-10), the internal engine being controlled by a control unit (col 2, lns 43-46; col 3, lns 29-32; Fig. 1, item 100), the control unit comprising a lubricant service monitoring system (col 3, lns 35-38), at least one memory allocation and a perceptible alarm (col 5, lns 49-57; Fig. 1, items 110, 120, 130, 140, and 200), the method comprising the lubricant service monitoring system recording an engine operating time value into the memory allocation and activating the perceptible

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alarm when the allocated engine operating time value exceeds a predetermined value (col 4, lns 54-68; col 5, lns 1-3).

For claim 26, King discloses the engine operating time value allocated in the memory is reset (col 3, lns 35-40 and 49-51; Fig. 1, item 170).

6. Claims 31 and 41 are rejected under 35 U.S.C. 102(b) as being anticipated by King (US 4,970,492).

For claim 31, King discloses a machine comprising an internal combustion engine, the internal combustion engine comprising an engine body, a movable member relative to the engine body and a lubrication system (col 1, lns 7-16), the lubrication system comprising a lubricant used to lubricate at least one movable member, a control system comprising a lubricant service monitoring system (col 3, lns 35-38), the lubricant service monitoring system comprising a timer (col 3, lns 35-37), at least one memory allocation (col 5, lns 49-57; Fig. 1, items 110, 120, 130, 140), and an alarm (Fig. 1, 200), the timer recording an engine operating time value (col 3, lns 35-38), the memory allocation holding the engine operating time value (col 5, lns 53-55; Fig. 1, item 120), an alarm unit responsive to output a perceptible alarm when a predetermined engine operating time value limit has been reached (col 4, lns 54-68; col 5, lns 1-3).

For claim 41, the claim is interpreted and rejected for the same reasons as stated in the rejection of claim 26 as stated above.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over King (US 4,970,492), and further in view of Kanno (US 6,213,820).

For claim 1, King discloses an internal combustion engine, the internal combustion engine comprising an engine body (col 1, lns 7-10), a movable member relative to the body and a lubrication system (an engine comprises many movable parts), the lubrication system comprising a lubricant used to lubricate at least the movable member (col 2, lns 39-43), a control system comprising a lubricant service monitoring system (col 3, lns 35-38) comprising a timer (col 3, lns 33-35), at least one memory allocation, and an alarm (col 5, lns 49-57; Fig. 1, items 110, 120, 130, 140, and 200), the timer recording an engine operating time value (col 3, lns 35-38), the memory allocation holding the engine operating time value (col 5, lns 53-55; Fig. 1, item 120), an alarm unit responsive to output a perceptible alarm when predetermined engine operating time value limits have been reached (col 4, lns 54-68; col 5, lns 1-3). King, however, does not disclose a watercraft internal combustion engine. Kanno, on the other hand, does disclose a watercraft internal combustion engine that monitors a movable member lubrication system (col 1, lns 12-15; Fig. 1; col 2, lns 54-56). It would

have been obvious to one of ordinary skill in the art, at the time the invention was made to include a lubrication system for all types of engines, regardless of their particular application; lubricating all moving parts of an engine is critical to optimal engine performance and extends the life of an engine.

For claim 11, the claim is interpreted and rejected for the same reasons as stated in the rejection of claim 26 as stated above.

9. Claims 2-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over King and Kanno, and further in view of Vajgart et al. (US 5,060,156).

For claim 2, King discloses outputting a perceptible alarm, but not at a predetermined frequency. Vajgart, however, discloses outputting a perceptible alarm at a predetermined frequency (col 12, lns 7-10). It would have been obvious to flash the alarm at a predetermined frequency so that a degree of urgency is communicated to an operator in order to take appropriate action.

For claim 3, King discloses outputting a perceptible alarm, but not at a predetermined frequency. Vajgart, discloses outputting an alarm frequency that increases at a rate proportionate to the predetermined engine operating time value limits (col 4, lns 57-62; col 10, lns 66-68; col 11, lns 1-4; 45-52; col 12, lns 7-10). The Accumulated Smart Sparks Value is based on engine operating characteristics, temperature, and time of continuous engine operation above a predetermined speed. It would have been obvious to flash the alarm at a rate proportionate to engine operating time value limits so that multiple levels of urgency are communicated to an operator in order to take appropriate action.

For claim 4, King does not disclose an audible alarm; however, Kanno discloses this feature (Fig. 7, item 268). It would have been obvious to include an audible alarm so that an operator acknowledges an alarm condition, while not having to focus on the visual alarm display.

For claim 5, King discloses a perceptible visual alarm (Fig. 1, item 200).

For claim 6, King discloses a visual alarm to comprise at least one light (Fig. 1, item 240).

For claim 7, King discloses a visual alarm to comprise at least one colored light (Fig. 1, item 240).

For claim 8, the claim is interpreted and rejected for the same reasons as stated in the rejection of claim 5 as stated above.

For claim 9, the claim is interpreted and rejected for the same reasons as stated in the rejection of claim 6 as stated above.

For claim 10, the claim is interpreted and rejected for the same reasons as stated in the rejection of claim 7 as stated above.

11. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over King and Kanno, and further in view of Tharman et al. (US 6,542,074).

King discloses that the system is reset, but does not disclose whether the perceptible alarm is reset. However, Tharman discloses the feature of resetting the perceptible alarm (Fig. 3, item 155; col 3, lns 41-45; col 5, lns 42-46; col 6, lns 20-25).



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12. Claims 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over King (US 4,970,492) and Kanno, as applied to claim 1, and further in view of Knight (US 6,276,975).

King is not specific about the type of memory allocation; however, Knight discloses a watercraft alarm where the memory allocation comprises RAM and EEPROM (col 1, Ins 41-43; col 4, Ins 34-45; Fig. 1, item 300). It would have been obvious to include RAM and EEPROM so that memory parameters are modified and stored upon an individual's preferences.

13. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over King, Kanno, and Knight, as applied to claim 13, and further in view of Vajgart (US 5,060,156).

King updates the values in storage, such as the engine operating time, but does not disclose updating RAM with the engine operating time at a predetermined frequency. However, Vajgart discloses updating RAM at a predetermined frequency (col 2, Ins 35-40; col 7, Ins 50-55; col 12, Ins 7-10; Fig. 7, item 40). It would have been obvious to update RAM at a predetermined frequency so that a degree of urgency is saved to memory and communicated along with the warning indicator.

14. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over King, Kanno, and Knight, as applied to claim 13, and further in view of Tharman et al. (US 6,542,074).

King updates the values in storage, such as the engine operating time, but does not disclose updating EEPROM with the engine operating time at a predetermined

frequency. However, Tharman discloses updating EEPROM at a predetermined frequency (col 4, lns 13-19; col 5, lns 15-20; col 6, lns 24-42). It would have been obvious to update EEPROM with the engine operating time from RAM at a predetermined frequency so that a degree of urgency is saved to memory and communicated along with the warning indicator.

15. Claims 17-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over King, and further in view of Vajgart et al. (US 5,060,156).

For claim 17, the claim is interpreted and rejected for the same reasons as stated in the rejection of claim 2 as stated above.

For claim 18, the claim is interpreted and rejected for the same reasons as stated in the rejection of claim 3 as stated above.

For claim 20, the claim is interpreted and rejected for the same reasons as stated in the rejection of claim 5 as stated above.

For claim 21, the claim is interpreted and rejected for the same reasons as stated in the rejection of claim 6 as stated above.

For claim 22, the claim is interpreted and rejected for the same reasons as stated in the rejection of claim 7 as stated above.

Claims 19, and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over King and Vajgart, and further in view of Kanno.

For claim 19, King does not disclose an audible alarm; however, Kanno discloses this feature (Fig. 7, item 268). It would have been obvious to include an audible alarm

so that an operator acknowledges an alarm condition, while not having to focus on the visual alarm display.

For claim 23, the claim is interpreted and rejected for the same reasons as stated in the rejection of claim 8 as stated above.

For claim 24, the claim is interpreted and rejected for the same reasons as stated in the rejection of claim 9 as stated above.

For claim 25, the claim is interpreted and rejected for the same reasons as stated in the rejection of claim 10 as stated above.

16. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over King, as applied to claim 16, and further in view of Tharman et al. (US 6,542,074).

The claim is interpreted and rejected for the same reasons as stated in the rejection of claim 12 as stated above.

17. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over King (US 4,970,492) and further in view of Knight (US 6,276,975).

King is not specific about the type of memory allocation; however, Knight discloses a watercraft alarm where the memory allocation comprises RAM and EEPROM (col 1, lns 41-43; col 4, lns 34-45; Fig. 1, item 300). It would have been obvious to include RAM and EEPROM so that memory parameters are modified and stored upon an individual's preferences.

18. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over King and Knight, and further in view of Vajgart (US 5,060,156).

The claim is interpreted and rejected for the same reasons as stated in the rejection of claim 14 as stated above.

19. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over King, Knight and Vajgart, and further in view of Tharman et al. (US 6,542,074).

The claim is interpreted and rejected for the same reasons as stated in the rejection of claim 15 as stated above.

20. Claims 32, 33, and 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over King, and further in view of Vajgart et al. (US 5,060,156).

For claim 32, the claim is interpreted and rejected for the same reasons as stated in the rejection of claim 2 as stated above.

For claim 33, the claim is interpreted and rejected for the same reasons as stated in the rejection of claim 3 as stated above.

For claim 35, the claim is interpreted and rejected for the same reasons as stated in the rejection of claim 5 as stated above.

For claim 36, the claim is interpreted and rejected for the same reasons as stated in the rejection of claim 6 as stated above.

For claim 37, the claim is interpreted and rejected for the same reasons as stated in the rejection of claim 7 as stated above.

21. Claims 34, and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over King and Vajgart, and further in view of Kanno.

For claim 34, the claim is interpreted and rejected for the same reasons as stated in the rejection of claim 4 and 19 as stated above.

For claim 38, the claim is interpreted and rejected for the same reasons as stated in the rejection of claim 8 as stated above.

For claim 39, the claim is interpreted and rejected for the same reasons as stated in the rejection of claim 9 as stated above.

For claim 40, the claim is interpreted and rejected for the same reasons as stated in the rejection of claim 10 as stated above.

22. Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over King, as applied to claim 31, and further in view of Tharman et al. (US 6,542,074).

The claim is interpreted and rejected for the same reasons as stated in the rejection of claim 12 as stated above.

23. Claims 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over King (US 4,970,492) and further in view of Knight (US 6,276,975).

The claim is interpreted and rejected for the same reasons as stated in the rejection of claim 28 as stated above.

24. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over King and Knight, and further in view of Vajgart (US 5,060,156).

The claim is interpreted and rejected for the same reasons as stated in the rejection of claim 14 as stated above.

25. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over King, Knight and Vajgart, and further in view of Tharman et al. (US 6,542,074).

The claim is interpreted and rejected for the same reasons as stated in the rejection of claim 15 as stated above.

### ***Conclusion***

26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Funayose et al. (US 6,864,806) discloses increasing alarm frequency upon predetermined engine characteristics.

Inoue (US 4,796,204) discloses numerous sensors that predict oil degradation for a motor.

Morikami (US 6,111,499) discloses detecting the length of time oil pressure is at a predetermined level and triggers an alarm if oil pressure is abnormal.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A Stone whose telephone number is (571) 272.2976. The examiner can normally be reached on M-F from 8:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Hofsass, can be reached at (571) 272.2981. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Jennifer Stone

May 10, 2005



JEFFERY HOFSSASS  
SUPERVISORY PATENT EXAMINER  
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